

BOISE STATE UNIVERSITY, COLLEGE OF BUSINESS AND ECONOMICS
 DEPARTMENT OF INFORMATION TECHNOLOGY AND SUPPLY CHAIN MANAGEMENT
 DEPARTMENT OFFICE: Room 308, Phone: 426-1181, E-mail: itscm@boisestate.edu

Syllabus ITM310 Business Intelligence, Fall 2008

SECTION: 005 **CLASS MEETING TIMES:** Tu, Th 4:40 – 5:55 **ROOM:** B207

INSTRUCTOR: Dr. Rob Anson

Contact Information	Office Hours
<i>Office:</i> Business Building—Room 308-B <i>Phone and voice mail:</i> 426-3029 <i>E-mail:</i> ranson@boisestate.edu	Tuesday: 1:30-2:30 and 4:30-5:30 Thursday 1:30-2:30 And by Appointment or Drop-In.

COURSE CATALOG DESCRIPTION

ITM 310 BUSINESS INTELLIGENCE

Study of Information Technology resources such as database systems, enterprise systems, and networks explained in their role of supporting decision makers. Special attention given to hands-on-experience in team projects for developing and using Business Intelligence. Ethical, legal, and behavioral issues of conducting Business Intelligence.

PREREQUISITES: BUSCOM 201 or ENGL 202

REQUIRED MATERIALS:

Business Driven Technology, by S. Haag, P. Baltzan and A. Phillips, Business Intelligence ITM310 custom volume, McGraw Hill, 2008

This is our primary text. It will be used heavily throughout the course. You will need it for the first day onward.

COBE Writing Style Guide, Boise State University, 8/2007

You are responsible for downloading your own copy of the current COBE Writing Guide.

It can be found on the Internet at <http://cobe.boisestate.edu/COBEwritingguide/> Also, see sample paper at <http://cobe.boisestate.edu/COBEwritingguide/sampleaparesearchpaper.htm>

Course Web site: <https://blackboard.boisestate.edu/>

The final course schedule is given on the WEEKLY SCHEDULE area of our Blackboard site. All class assignments and due dates, lecture slides, and supplemental materials will be posted to our course Blackboard site. It is important that you check it regularly.

Other reading materials will be posted on Blackboard in the Resources section.

IMPORTANT SEMESTER DATES

August 25, Monday	Classes begin
September 1, Monday	Labor Day, no classes
September 8, Monday	Last day to drop class without W
October 3, Friday	Last day to drop classes or completely withdraw
November 24-30	Thanksgiving Holiday, no classes
December 12, Friday	Classroom instruction ends
December 18, Thursday	3:30 – 5:30 Final Exam Period Mandatory Participation

COURSE OVERVIEW

Data Management Review is one of the primary pubs in the Business Intelligence field. Its website gets right to the heart of the issue, which is this: Business is all about information; Business Success is all about using information more effectively than the other guy.

Information fuels the new economy and plays an essential role in developing and maintaining a sustainable competitive advantage. The demands on a business today - increased global competition, lower barriers to entry, lower profit margins - are creating an ever-increasing need for access to data. The ability to get the right information to the right people at the right time is, therefore, more important than ever; however, the sheer volume of available data makes such a proposition more challenging than ever.

Organizations that are the most successful at collecting, evaluating and applying information are consistently the leaders in their respective industries. The ability to act faster and more effectively than the competition can be the defining advantage in today's marketplace and the means for successfully managing customer relationships in the long run.

As companies look to Business Intelligence (BI) solutions in order to address these challenges, BI software has become a multibillion dollar market. BI offers tremendous promise to company leaders - too often though, this promise has not been fulfilled.

DMR Review, (2007) "Business Intelligence (BI) Portal", by SourceMedia, Inc. Retrieved on 7/29/2007 from <http://www.dmreview.com/portals/portal.cfm?topicId=230064>

It takes a variety of expertise to start and run a business—financial, operational, marketing, accounting, human relations, managerial, etc. Likewise, each knowledge base requires up to date and historical information to plot strategy or keep it on track. Our ability to capture large volumes of data often outstrips our ability to evaluate and apply the data as management information.

This course is about how organizations can successfully “collect, evaluate and apply information” to become leaders. It starts with basic concepts regarding business needs, and ends with hands-on experience using state-of-the-art Business Intelligence tools.

Section I “Achieving Business Success Through Information Technology” starts by looking at business organizations, how they work, and what they need to compete with others. “Competitive Strategies” is a term we will toss around quite a bit. This is the context within which we can start to learn about information and information systems, and their key role in achieving business success.

Section II “Defining and Accessing Data for Decision Making” moves us into a more detailed focus on data storage and information access. These topics are closely linked. Most organizations have tons of data stored electronically, but cannot access it in a meaningful way (as “information”) because of storage limitations. So we will learn how to reshape data into information that can directly answer our business questions.

Section III “Enterprise Business Intelligence Analytics” introduces us to the forefront of technologies used to access information. We will get a chance to work with a couple large-scale analytic systems among those used in leading organizations. These systems query and reshape the data in ways that are far more powerful than traditional spreadsheets and databases. Their advanced “data visualization” capabilities allow new ways to advance decision making and problem solving.

PARTICIPATING IN OUR COURSE

Learning is not a spectator sport!

I will make every attempt to keep the assigned reading materials relevant, interesting and minimal. In return, I expect you to make every attempt to make sure you read the assigned materials before coming into class. If most people are prepared each day for class, we can dispense with frequent quizzes and exercises to goad you into doing the reading.

An Active Class

If we both hold to our part of the bargain, then we can make the classroom into a more interesting and active place! My plan is to reduce the amount of lecture in-class, to use the bulk of class time for actively exploring the reading materials and going beyond them to apply, integrate and evaluate. We will have opportunities to:

- work with real “tools” (computerized information system applications that are used to do work of some kind) and real data problems, similar to those faced in organizations.
- debate current topics and real business issues related to Business Intelligence field
- work in teams during class time on projects
- exercise our ability to apply concepts to real issues

Using IT to Learn About IT

You will be encouraged to get your hands dirty on a variety of different software applications, that we’ll call “tools”. Most of these are commonly used tools out in real organizations, so there is some direct benefit in gaining some experience with them. The more important learning however is gaining experience with these types of software and types of IT capabilities, plus building up your comfort level with trying out and using new tools. Some of the tools we will probably using in this class include:

- Blackboard
- Microsoft Office Live
- Microsoft Excel and Access
- Google Apps (Google Groups, Documents, Sites)
- ArcExplorer (Geographic Information System) by ESRI
- Tableau (data visualization) a Business Intelligence product by Tableau, Inc.

Standards for All Written Deliverables

Your written submissions should look and read professionally, as in the real world. Projects should be done on the computer (except when specifically noted). Look at documents I give you in class, the attention to both the form and content of the information. Section headings and bullets are used for clarity; paragraphs make sense as a whole unit.

We will use the **COBE Writing Styles Guide** (known as “the GUIDE”) as the standard for writing in this class. The GUIDE was developed by your College of Business and Economics faculty to communicate our expectations for your written work. It provides basic standards for business writing, applied across courses in the College. These standards emphasize professional workplace business communications.

On writing assignments, 15% of your grade will be based on your writing, as outlined the GUIDE in general, plus any assignment-specific standards. I’ll consider formatting, spelling and reference citation in addition to content.

Special Notes About E-mailing Instructor

Email is a great way to contact me to ask questions, request an appointment, give me feedback on the class, or for whatever purpose. I do ask that you pay attention to a few basics of effective emailing:

1. **Include an informative SUBJECT LINE. For our class, start with ITM310 (if it is class related), then clearly state the nature of the message.** For example, “ITM310 Request an appointment”, or “ITM310 HELP I’m Stuck !!!” I receive 40-50 emails per day so the subject line helps me to prioritize.
2. **In the MESSAGE always include your name.** I often can’t tell from the email address.
3. **When replying to an email, ALWAYS include the past trail of messages** so I know the context of your reply. Add your note to the top of the email, followed by the prior messages.
4. **When requesting an appointment, tell me a) what you want to discuss, and b) give me choices for times that work for you in the e-mail.** Add a phone number if necessary so we can schedule something quickly.

WEB RESOURCES:

Blackboard Site: <http://www.blackboard.boisestate> (Username & password required.)

You will need to access this site, at a minimum, twice per week. All assignments for the class, many of the supplementary materials, the online gradebook, and email to everyone in the class will be found here..

Textbook Site: <http://www.mhhe.com/bdt3e> (Student Edition. No password required.)

You should take a look at this site for its variety of relevant resources that supplement the textbook.

Google Apps: <https://apps.boisestate.edu> (Boise State provided email site)

You will need to use some of the applications here to interact with your team.

GRADING AND EVALUATION CRITERIA

Your grade will be comprised of these parts:

Evaluation	Weight
Exams	40%
Team project	30%
Individual contribution to Team project	10%
Individual Exercises	20%
TOTAL	100%

Exams

Forty percent of your grade will be based on the two exams that are at about 1/3 and 2/3 through the course. Each exam addresses a segment of the course, and is focused on your understanding of the principle concepts, techniques and tools covered in that segment.

The exams will each be somewhat different, reflecting the different type of material covered. The first cover mostly conceptual learning, and will be mostly objective questions (true or false, multiple choice, completion, etc.) plus a couple of essay or application questions. The second will cover information and data manipulation, so there may be some problems to solve using the software, as well as objective and essay questions.

No-make ups are allowed without permission of instructor. They must be requested at least four days prior to the start of the exam period.

Team Project

In this class, one of the key learning outcomes will be to become more proficient at working effectively and efficiently in teams. We will take some time out to study and practice working effectively in teams. And you will be graded on your individual ability to work effectively in a team. It is not always easy or convenient to work with others. But it is a real necessity. In today's team-based world, this is one of the most important skills you can possibly develop.

Thirty percent of your grade is based on your team project work. The project will be developed and submitted in 3 parts. For each part there will be a team grade. **However, you must make at least a minimal contribution to a part of the project in order to receive the team points for that part. I will give you zero (0) points for the project part if the team reports that you have not made a substantive contribution.**

Ten percent of your grade will depend on your own, individual, contributions to the team and the team project work. Your contributions will be assessed by your team mates; as you will be able to assess theirs. These assessments will be used by the instructor to adjust your individual project grade. In addition, poor attendance during team project work class periods will also figure into your contributions assessment by the instructor. Some time during class will be provided for teams to work, however you will need to do most project work outside of class.

Individual Exercises

Twenty percent of your grade is based on the completion of assigned individual exercises, quizzes, case analyses, etc. The purpose of all these are learning through practice, more than evaluation. They are opportunities for you to practice skills, think through concepts, and direct reading. These exercises will be posted on Blackboard at least one class period before they are due. If an exercise is to be done during class, that fact will be posted on Blackboard at least 48 hours before the class.

GRADING POLICIES

Your points for each graded item will be posted to Blackboard as it is evaluated, and the graded item returned to you. You are responsible for reviewing your grades posted to Blackboard, and ensuring they were posted correctly. If a mistake was made, you need to inform me and resubmit your graded item within two weeks.

Grading scale

% of Total Points	Grade	% of Total Points	Grade	% of Total Points	Grade
97 or higher	A +	93 – 96	A	90 – 92	A -
87 -89	B +	83 – 86	B	80 – 82	B -
77 – 79	C +	73 – 76	C	70 – 72	C -
67 – 69	D +	63 – 66	D	60 – 62	D -
Below 60	F				

Academic Dishonesty

I expect you to uphold the Boise State University standard of conduct for academic integrity, as outlined by the Student Conduct Office. You assume full responsibility for the content and integrity of the academic work submitted. Academic dishonesty is taken seriously; any student violating the standard of conduct will be subject to disciplinary action, including receiving a failing grade (F) in the course.

Fortunately, the [COBE Writing Style Guide](#) includes examples for how to correctly cite ideas and quotations from a variety of sources. I expect you to follow its standards. The excuse, “I didn’t know…” will not work.

The guiding principle of academic integrity is that any work you submit with your name on it, must be “your own work”. That means you wrote it, they are your ideas, you solved the problems, you researched what other people said, etc.

- ❖ **When you borrow ideas**—whether or not you use the specific words someone else used—you must clearly show that those ideas belonged to someone else, and to whom they belonged. That means you have a “citation” in the text with those ideas, and a “reference” to the full source where the ideas were found.
- ❖ **When you borrow specific words**, phrases or sentences, then you must also enclose the words in quotation marks (and include the citation and reference). The reader must be able to easily tell that something came from someone other than you.

For an individual assignment, I expect you to do it yourself. Usually it is fine to discuss it with other students, but the specific ideas and their expression must be yours and yours alone. If the ideas expressed on your paper or in your program are too similar to another student’s—whose name is not on the paper—I will assume you were plagiarizing. The first time you will receive a warning and half credit or no credit, depending on the circumstances. The second time will be an automatic F for the course.

For a group assignment, I expect each person to contribute substantially to the end product. It is very simple--**If you did not contribute a reasonable share of the work, then don’t put your name on it!** If your name is on it, I expect that you contributed a fair share of the work. **If you don’t contribute, or disrupt the contributions of others, you will receive less than 100% of the group’s grade.** The second warning will be an automatic F for the course.

Due Dates

All assignments are due at the beginning of class at the date listed. I will accept up to two (2) late assignments/projects from you. You must submit them within 7 days of their due date, and you will lose 10% of the total points from your grade (unless otherwise noted). The first three late assignments--from you or your group--require no excuses. After three lates, however, I will not accept any late work-- no questions asked/no excuses needed.

Grading Policy/Appeals

Your points for each graded item will be posted to Blackboard as it is evaluated, and the graded item returned to you. You are responsible for reviewing your grades posted to Blackboard, and ensuring they were posted correctly.

Grade appeals must be made *in writing* within one week of receiving the assignment grade. In your letter, please state explicitly why you think you deserve a better grade, or, if I made a mistake in calculating your grade, where I erred. The original, graded paper must be included with your appeal.

Effort vs. Performance

All assignments will be graded based on performance. In other words, just putting in a lot of effort into a deliverable will not be sufficient to secure a good grade. While some may need to put in less effort, good deliverables usually require at least some effort, so please schedule your time wisely.

GENERAL EXPECTATIONS

Because this is a business course, the expectations are the same as those you have to meet for an employer. Your grade is the equivalent of a performance evaluation.

- Plan and schedule ahead.** If you go to a work meeting unprepared, your boss and colleagues will question why they hired you. If you come to class unprepared—not having read the assigned readings or completed assigned work—your instructor and your fellow students will question why you are wasting your money on school.
- Meet your due dates.** If you do not complete your work on time, you will be poorly evaluated, or fired. If you do not turn in your homework on time, your instructor will give you fewer points, or none at all. Likewise, if you commit to your team to do parts of project but are late or turn in poor work, they will evaluate you poorly or fire you.
- Show up for work.** Come to class and be on time. Every time. And stay until its over. If you must miss class, follow-up with Blackboard AND a classmate.
- Be there, completely.** Not paying attention gets you NOWHERE. Actively participate in class discussions. Take lecture notes. Ask questions if something isn't clear.
- Take initiative.** Visit the professor during office hours or by appointment--to ask questions, discuss an idea from class, or just to get to know them. Likewise, get to know some of your classmates. Other students and your professors are potentially valuable resources now and in the future.

Team/Group Conduct

Team members are expected to act in a professional, responsible manner. This means:

- Attending group meetings
- Making sure others in your team are contacted in advance if one member can not fulfill a commitment
- Not expecting a single team member to carry the workload of other members
- Taking appropriate actions when you feel that another team member isn't meeting group expectations and/or carrying their fair share of the work. First, communicate concerns to the team member. Second, discussing how to improve the situation with the team. Third, documenting your concerns and discussing the situation with me.
- Providing an honest peer evaluation on the performance of all group members, (including yourself).

Note: As in the real world, people get fired for not showing up, not doing their job, or contributing garbage and undermining the efforts of the rest of the team. However, you will have to provide appropriate documentation of problems prior to my removing a member from your team.

ITM310-005 Fall 2008 Schedule *(may change during semester)*

I. Achieving Business Success Through Information Technology

WEEK 1 (8/26, 8/28)

TUES: Class Intro **DUE:** ...
THUR: IT Role in business (Ch 1) **DUE:** ...

WEEK 2 (9/2, 9/4)

TUES: Competitive forces, strategies and business processes (Ch 2) **DUE:** I-Startup Exercise
THUR: Business IT Systems: CRMs, ERPs, BPMs (Ch 3) **DUE:** ...

WEEK 3 (9/9, 9/11)

TUES: Business IT Systems: Focus on CRM (Ch B9) **DUE:** ...
THUR: Team Formation; Project Part 1 Introduction (Article) **DUE:** I-Exercise: Hitchhikers

WEEK 4 (9/16, 9/18)

TUES Interviewing; Project Team Work (Handout?) **DUE:** T-Exercise: Interview Plan
THUR: Project Management (??) **DUE:** ...

WEEK 5 (9/23, 9/25)

TUES: e-Business Strategies (Ch 14) **DUE: Project Part 1: Business Interview + Peer Fdbck**
THUR: Project Part 2 Introduction; In-Class Team Work **DUE:** ...

Exam 1

Taken in E-Testing Lab between 9/23-9/26

II. Defining and Accessing Data for Decision Making

Week 6 (9/30, 10/2) (10/3 Last day to drop class)

TUES: Valuing Organizational Information (Ch 6) **DUE:** ...
THUR: Assessing Business Performance—KPIs & Dashboards (Ch 4 & Article) **DUE:** ...

WEEK 7 (10/7, 10/9)

TUES: In-Class Team Presentations **DUE: PROJECT Part 2--Business & IT Strategy + Peer Fdbck**
THUR: In-Class Team Presentations **DUE: PROJECT Part 2-- Business & IT Strategy**

Week 8 (10/14, 10/16)

TUES: Storing Organizational Information—Databases (Ch 7) **DUE** ...
THUR: Defining Data for Decision Making (??) **DUE:** ...

WEEK 9 (10/21, 10/23)

TUES: Problem Solving Using Excel—Lists & Filters **DUE:** T-Exercise: Project Data
THUR: Problem Solving Using Excel—Pivot Tables & Charts **DUE:** I-Exercise: Excel Lists & Filters

WEEK 10 (10/28, 10/30)

TUES: Querying Relational Databases **DUE:** I-Exercise: Excel Pivot Analysis

THUR: Querying Relational Databases **DUE:** ...

WEEK 11 (11/4, 11/6)

TUES: Accessing Organizational Information—Data Warehouses (Ch 8) **DUE:** I-Exercise: Querying Data

THUR: Finding the Right Tool (Handout??) **DUE:** ...

WEEK 12 (11/11, 11/13)

TUES: Exam **DUE: EXAM 2 in-class**

THUR Project Part 3 Introduction; Real BI--Tableau Demo (Handout) **DUE:**

III. Enterprise Business Intelligence Analytics

WEEK 13 (11/18, 11/20)

TUES: Designing Effective Charts and Graphs (??) **DUE:** ...

THUR: GIS--Arc Explorer Demo (Handout) **DUE:** TBD

11/25, 11/27 Thanksgiving -- No Class

WEEK 14 (12/2, 12/4)

TUES: Review/Questions Tableau & Arc Explorer; In-Class Team Work **DUE:** ...

THUR: BI Case Discussion (Article) **DUE:** I-Exercise: BI Case Analysis

WEEK 15 (12/9, 12/11) (Dead Week)

TUES: In-Class Team Work **DUE:** ...

THUR: Integration (???) **DUE:** ...

FINAL EXAM WEEK (12/16 Two Hours—Mandatory Participation)

All Teams must turn in printed PowerPoint slides at start of class.

DUE: PROJECT 3—Location Analysis Team Presentations